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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/520,733

Filing Date: January 10, 2005

Appellant(s): REDER ET AL.

Daniel J. Hudak Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/18/10 appealing from the Office action mailed 6/7/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:
1-10, 15-19, 21 and 25-28

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,830,348	Vannoy et al.	11-1998
3,952,904	Verlinden	4-1976
1,371,530	Wagner	3-1921
4,109,820	Stifano	8-1978
2001/0000894	Gizowski et al.	5-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8, 16-18 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy et al. US 5 830 348 in view of Verlinden US 3 958 904 and Wagner US 1 371 530.

Claim 1, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section with a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy teaches the curved edge section has a first end but does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the

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peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall adjacent thereto, wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge

section has a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure taught by Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claims 2-8 and 16-18, Verlinden further teaches in vertical cross section the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the curved edge section tangentially (fig. 1); the common wall section forms a lower wall

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section of the lateral wall that includes the lower end (fig. 1); the curved edge section extend up to the inner end of the strip shaped lateral wall (fig. 1); the curved edge section has a mean edge of curvature R, which satisfies R greater than 5xS, S being the thickness of the peripheral wall of the cartridge container (fig. 1); the curved edge section spans an angle of 90 degrees (fig. 1); the lateral wall upper wall section extends upward from the common wall section at least up to a height of the lid bottom (fig. 1); and the upper wall section of the lateral wall and the curved edge section border on their outer side forming a ring space with a wedge shaped cross section (fig. 1).

Claim 25, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section with a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy teaches the curved edge section has a first end but does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

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Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto wherein in the vertical cross-section, the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the first end of the curved edge section tangentially, where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral

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wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall adjacent thereto, wherein the lateral wall is connected with the first end of the curved edge section, wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has a second end that merges into an essentially horizontal lid bottom middle section (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure taught by Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved

edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claim 26, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall and the lid having a curved edge section immediately merges into an essentially horizontal lid bottom middle section at a second end (fig. 1, col. 4, lines 8-17). Vannoy does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved section, tapering inwards, in a forming region or an essentially vertical section at one end.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the

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peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto and the curved edge section consists of a single curved portion having a radius of curvature R, where glue connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has an essentially vertical section at one end in an area of the common wall section (fig. 1, col. 5, lines 21-29).

Wagner teaches a container (1) with a peripheral wall and a lid (2), comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the container peripheral wall

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adjacent thereto, and wherein the curved edge section consists of a single curved portion having a radius of curvature R, wherein a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section immediately merges into an essentially horizontal lid bottom middle section at a second end (fig. 1, pg. 1, line 105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lid structure of Vannoy with the lid structure as taught by Verlinden and Wagner because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (Verlinden, col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (2007). Wagner also demonstrates that the particular technique of providing the lid bottom merging with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section and a second end of the curved edge section merges into a horizontal lid bottom was recognized as part of the ordinary capabilities of one skilled in the art and therefore the claim would have been obvious. Applicant's invention is merely the use of known techniques with a known device with predictable results.

Claims 27 and 28, Vannoy does not teach the curved edge section has an essentially vertical section at one end in an area of the common wall section. Verlinden teaches the curved edge section has an essentially vertical section at one end in an area of the common wall section and would have been obvious for the same reasons detailed in the rejection of claims 1 and 25.

Claims 9, 10, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 and Verlinden '904 and Wagner '530 and further in view of Stifano US 4 109 820.

Claims 9 and 19, Vannoy and Verlinden teach the filter cartridge of claim 1 or 8 but do not teach a back up ring arranged on the lid.

Stifano teaches a cartridge having a lid further comprising a back up ring arranged on the lid (col. 3, lines 32-34), the back up ring has an inner wall comprising a ring opening (at 25) an outer lateral wall in contact with the lid lateral wall and a plurality of radial reinforcing ribs (14) extending between the back up ring inner wall and the back up ring outer lateral wall (fig. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the back up ring of Stifano because the ring redirects the pressure within the container to the walls and makes a stronger seal (col. 3, lines 46-56).

Claim 10, Stifano further teaches at least a bottom contour of the back up ring is connected to the back up ring inner wall and the back up ring outer lateral wall and is built such that the bottom contour is complementary to an outer contour of the lid (fig. 6).

Claim 21, Vannoy further teaches the lid includes a connecting tube at its center that is connected to the essentially horizontal lid bottom middle section and Stifano also teaches the lid including a connecting tube (25) accessible through the ring opening of the back up ring (Vannoy (fig. 1), Stifano (fig. 6)).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 in view of Verlinden '904, Wagner '530 and Gizowski et al. US 2001/0000894 A1.

Vannoy further teaches a weld where the weld is a laser weld but does not teach the material of the cartridge is transparent to laser light. Gizowski teaches the material of the cartridge container is transparent to laser light and at least the material of the lateral wall of the lid is absorptive to laser light (paragraph 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the materials as taught by Gizowski because it enables increase manufacturing rates and provides a higher quality fluid seal (paragraph 7).

(10) Response to Argument

Claim 1:

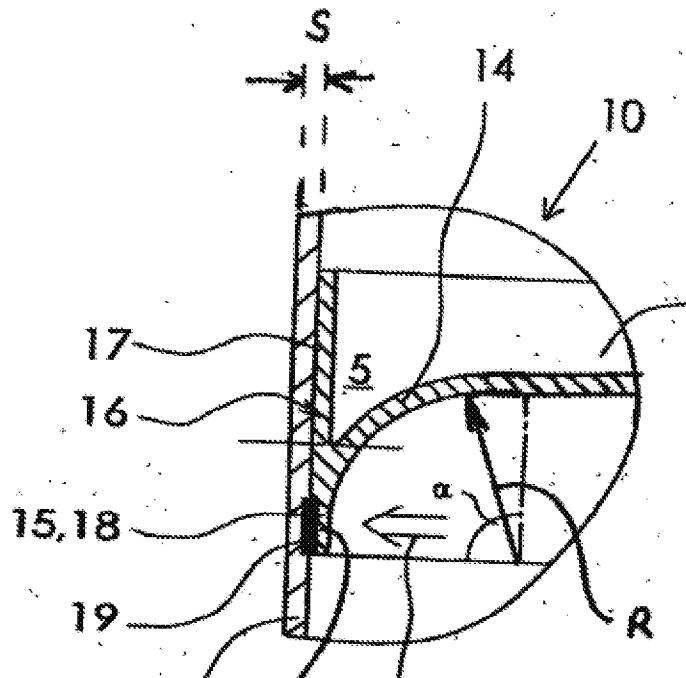
Appellant argues that Vannoy does not teach a common wall section that is tapering inwards in a forming region. The office agrees that Vannoy does not teach this feature, however this feature is taught by Verlinden. Appellant argues that because there is no common wall section in Vannoy it is unclear how one of ordinary skill in the art would be led to combine the scope and content of Vannoy with that of Verlinden. The invention of Verlinden addresses the problem of a pressurized container and provides a lid having the same structure of the presently claimed lid. The application of the structure of the lid of Verlinden would have been readily recognized and obvious to one of ordinary skill in the art as the container and lid of Vannoy would be subjected to a pressurized condition.

Appellant argues that claim 1 recites the lateral wall has a linear vertical cross-section along the entire length of the lateral wall. The curved part of Vannoy at the top of the lateral wall appears to be a crimp to attach the lid to the container. Both Verlinden and Wagner teach a linear lateral wall along the entire length as these lids are secured to the container in a different fashion. The use of a linear lateral wall along the entire length of the lateral wall is known and would have been obvious in light the teachings of Verlinden and Wagner.

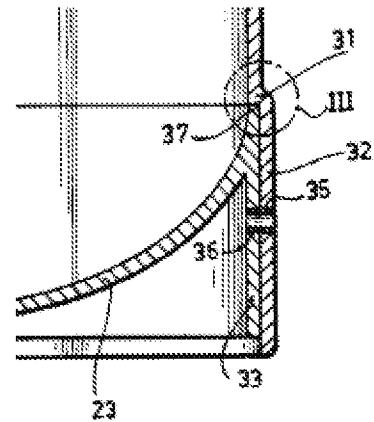
Appellant argues that the flange (3) of Wagner is not in contact with the side wall along the entire length of the lateral wall as recited in claim 1. Wagner is cited primarily

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to show that providing an essentially horizontal lid bottom middle section is known in the art and would have been obvious to one of ordinary skill in the art at the time of the invention. The features applicant argues regarding Wagner are already taught by Verlinden.



Appellant's Invention (fig. 2a)



Verlinden (fig. 2)

Claim 2:

Appellant argues that Verlinden does not teach the recited tangential connection between the lateral wall and the curved edge section. Verlinden does teach this feature as shown in figure 2 of Verlinden. The lid structure of the lateral wall, curved edge

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section and common wall section is the same in Verlinden as that shown by appellant as seen in the figures above.

Claims 5 and 17:

Appellant argues that Verlinden does not present any relative dimensions regarding the radius of curvature. The lid of Verlinden clearly shows a large radius of curvature in comparison to the thickness of the peripheral wall of the container as seen in figure 2 of Verlinden.

Claim 6:

Appellant argues that Verlinden does not teach the curved edge section spans an angle from 80-100 degrees. Verlinden does teach this feature as clearly seen in figure 2. It is unclear how appellant arrives at the approximate 67 degree measurement from the figure of Verlinden. Furthermore, the rejection is based on the combination of Vannoy, Verlinden and Wagner. When the horizontal lid bottom middle section as taught by Wagner is applied to the lid of Verlinden the angle will clearly be 90 degrees.

Claims 25 and 26:

Appellant arguments regarding claims 25 and 26 reiterate the same points already stated regarding claims 1, 5 and 17 and have been addressed in the responses above.

Claims 9, 10 and 19:

Appellant argues that Stifano does not teach a back-up ring as claimed. Stifano teaches the plurality of support members (14), as taught in col. 3, lines 29-33, may be separate and distinct from the lid. Stifano states the support members are preferably integrally formed with the face and flange clearly implying an embodiment where the support members are separate and distinct from the lid. The support members form an inner wall, near (25) the inner ends of the ribs, and extend radially outward forming an outer lateral wall, the outer ends of the ribs (14), that is connected to the lid lateral wall as claimed. The support members extend from the inner wall to the outer wall.

Claim 21:

Appellant argues the examiner's rejection with respect to Stifano is inconsistent with the rejection of dependent claim 9. Appellant argues that in the rejection of claim 9 the examiner cites (25) as being the inner wall comprising the ring opening. The rejection of claim recites the inner wall comprising a ring opening (at 25). The structure (25) is not the cited inner wall as appellant states.

Claim 15:

Appellant argues the examiner has picked and chosen isolated features in the prior art and combined the same in order to attempt to arrive at the appellant's invention. The use of a transparent container and a laser absorptive lid is known as

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taught by Gizowski is a known technique in the art and would have been obvious for the reasons stated in the rejection.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Benjamin Kurtz/

Examiner, Art Unit 1772

/In Suk Bullock/

In Suk Bullock

Supervisory Patent Examiner, Art Unit 1772

Conferees:

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